SERVICE MANUAL

SD-55

4822 725 50846

marantz®

model SD-55

Stereo Cassette Deck

MARANTZ DESIGN AND SERVICE

Using superior design and selected high grade components, MARANTZ company has created the ultimate in stereo sound.
Only **original MARANTZ parts** can insure that your MARANTZ product will continue to perform to the specifications for which it is famous.

Parts for your MARANTZ equipment are generally available to our National Marantz Subsidiary or Agent.

ORDERING PARTS:

Parts can be ordered either by mail or by telex. In both cases, correct part number has to be specified.
The following information must be supplied to eliminate delays in processing your order:

1. Complete address
2. Complete part numbers and quanties required
3. Description of parts
4. Model number for which part is required
5. Way of shipment
6. Signature: any order form or telex must be signed otherwise such part order will be considered as null and void.

TECHNICAL ASSISTANCE

Should you require any other technical support, do not hesitate to contact the Technical Department of
MARANTZ INTERNATIONAL
Quality & Service Dept.
Vestdijk 9
5600 MD Eindhoven
The Netherlands
Phone: +31/40.75.88.91 or 75.88.78 or 75.89.01
Telefax: +31/40.75.82.99
Telex: 35000 PHTC NL routing IND NLMTFAT

PARTS ORDERING

Parts may be ordered at the following addresses:

AUSTRIA
HORNYPHON
Vertriebsgesellschaft GmbH
Wienerbergstrasse 1
A 1101 Wien
Austria
Telex: 132.332

BELGIUM
SVD DIVISION MARANTZ
Industrialaan 1
1720 Groot-Bijgaarden
Belgium
Telex: 24466

CHILE
MARANTZ
DIVISION OF PHILIPS S.A.
AV. Santa Maria, 0760
Casilla 2687
Santiago
Telex: 240.239

DENMARK
MARANTZ
DIVISION OF PHILIPS
SERVICE A/S
Prags Boulevard 80
Postbox 1919
DK-2300 København S
Denmark
Telex: 31201

FINLAND
MARANTZ
DIVISION OF OY PHILIPS Ab
Kaivokatu 8
00100 Helsinki
Finland
Telex: 124811

FRANCE
MARANTZ FRANCE
4 Rue Bernard Palissy
92600 Asnières
France
Telex: 611651

GERMANY
MARANTZ GERMANY GmbH
Max-Planck-Strasse 22
6072 Dreieich 1
Germany
Telex: 529821

THE NETHERLANDS
Elpro Marantz
Wint Hontlaan 28
3526 KV Utrecht
The Netherlands
Telex: 4748

NORWAY
MARANTZ
DIVISION OF PHILIPS A/S
Sandstuveien 40
0680 Oslo 6
Norway
Telex: 72640

GREAT BRITAIN
MARANTZ AUDIO U.K. Ltd
Unit 15/16
Saxon Way Industrial Estate
Moor Lane
Harmondsworth UB7 OLW
Great Britain
Telex: 935196

GREECE
SHERTON ELECTRONICS S.A.
P.O.Box 21025
Hippocratus Street 188
Athens 11471
Greece
Telex: 216.795

JAPAN
MARANTZ JAPAN, Inc.
35-1, 7-chome, Sagamiono
Sagamihara-shi, Kanagawa
Japan

KUWAIT
AL ALAMIAH ELECTRONICS
Ussama Building
Fahd al Saleem Street
P.O.Box 23781
Safat-Kuwait
Telex: 22694

ITALY
MARANTZ ITALIANA S.P.A.
Via Chiese, 74
20126 Milano
Italy

SAUDI ARABIA
AL ALAMIAH ELECTRONICS
P.O.Box 5954
University Street
Riyadh 11432
Saudi Arabia
Telex: 401530

SOUTH AFRICA
MARANTZ
DIVISION OF PHILIPS S.A.
Main Road Martindale
P.O. Box. 58088
Newville 21114
South Africa

SPAIN
PHONO S.A.
Ignacio Iglesias 10
Badalona (Barcelona)
Spain
Telex: 59355

SWEDEN
MARANTZ
DIVISION OF PHILIPS
Försäljning AB
Tegeluddsvägen 1
S-115 84 Stockholm
Sweden
Telex: 14060

SWITZERLAND
DYNAVOX ELECTRONICS
Route de Villars 105
1701 Fribourg
Switzerland
Telex: 942377

TURKEY
DOGRUOL Ltd.
I.M.C.
6 Blok N°6310
Unkapani
Istanbul
Turkey
Telex: 22085

MALTA
CACHIA & GALEA
Republic Street, 68D
Valetta
Telex: 1682

PORTUGAL
MARANTZ
Divisao philips S.A. service
Outurela-carnaxide
2795 LinDA-A-VELHA
Telex: 43906

All of the above locations are fully equipped to take care of your total service needs. Because various countries have differing configuration requirements, it is necessary that you contact the service facility in your particular country. In the event that there is no service location listed for your country, please, contact the nearest facility for the necessary assistance.

In case of difficulties, do not hesitate to contact the Technical Department at abovementioned address.

TABLE OF CONTENTS

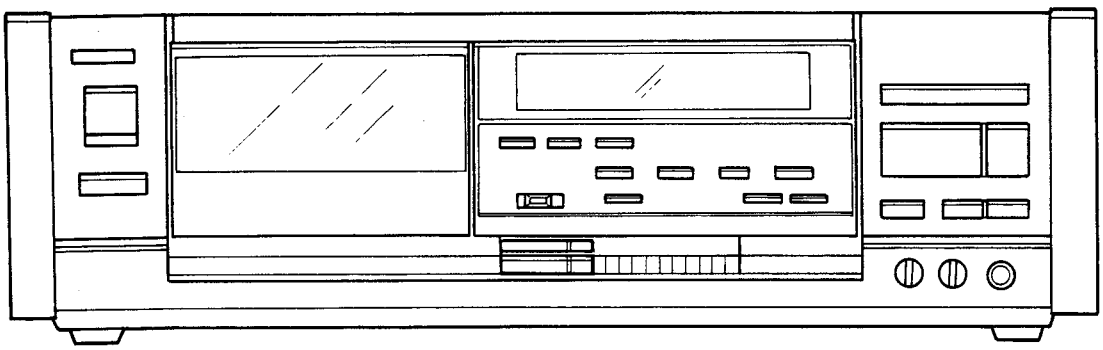
1. P.W. BOARDS 3
2. MECHANICAL ADJUSTMENTS AND CHECKS 4
3. ELECTRICAL ADJUSTMENTS AND CHECKS 5
4. BLOCK DIAGRAM 10
5. PARTS LOCATION (Pattern Side) 11
6. EXPLODED VIEWS AND PARTS LIST 14
7. ELECTRICAL PARTS LIST 20
8. TECHNICAL SPECIFICATIONS 22

How to use this service manual

- The "Common parts" which Marantz Japan, Inc. has established are eliminated from this service manual.
- These "Common parts" are applied to all models in the service manuals arranged and issued by MJI.
- To indicate clearly the common parts in the schematic diagram, a line is drawn above or under the Ref. Desig. No. of applicable parts.
- "Common parts" can be supplied from the Marantz service center as ever.
  In case of ordering, please establish the parts number of 12 N/C'S following the procedure mentioned in this service manual "How to establish the parts number for common parts".

1) Please correctly write the parts number of 12 N/C'S following the rule.

MODEL SD-55 STEREO CASSETTE DECK



1. P.W. BOARDS

As can be seen from the circuit diagram, the chassis of your Cassette Deck consists of the following units. Each unit mounted on a printed circuit board is described within the square enclosed by a bold dotted line on the circuit diagram.

1. Main . . . . . mounted on P.W. Board PA01
2. Level Meter . . . . . mounted on P.W. Board PD01
3. Eject Switch . . . . . mounted on P.W. Board PE01
4. Power Switch . . . . . mounted on P.W. Board PF01
5. Transformer . . . . . mounted on P.W. Board PG01
6. Sensor . . . . . mounted on P.W. Board P100
7. Cam . . . . . mounted on P.W. Board P200

2. MECHANICAL ADJUSTMENTS AND CHECKS

2-1 WOW AND FLUTTER (PLAYBACK METHOD)

NOTE:
These measurements should be made at the beginning, middle, and the end of the tape.

1. Connect a wow-and-flutter meter to the deck as shown in Fig. 2-1.
2. Load and play a TEAC MTT-111 test tape.
3. Check that the readings on the wow-and-flutter meter are as follows.
   Specifications: 0.05% WRMS
   0.2% RMS

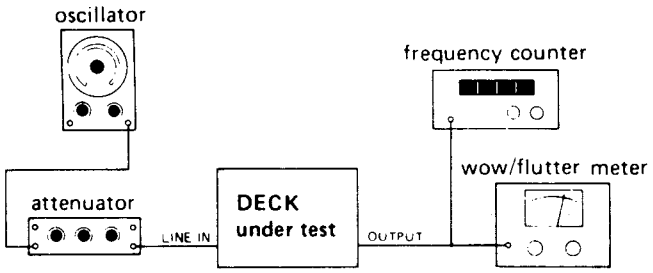


Fig. 2-1

2-2 TAPE SPEED

1. Connect a frequency counter to the deck as shown in Fig. 2-1.
2. Playing the mid portion of am MTT-111 test tape adjust the semi-fixed resistor on capstan motor so that tape speed becomes 3,000 Hz ±5 Hz. An insulated and non-metallic flat-head screwdriver should be used for this adjustment.
3. In play mode, check that the following values are obtained at the beginning and at the end of the tape.
   Deviation: 3,000 Hz ± 45 Hz
   Width of deviation: Within 45 Hz

2-3 REEL TORQUE

1. Load the cassette torque meter on the deck and read the pointer indication on the dial scale for each tape transport operation. The measured torque should be within the following sepcified values:
   Specifications:
   Take-up (both FWD/REV):
   30 to 55 g·cm (0.42 to 0.76 oz·inch)
   Supply (both FWD/REV):
   2.5 to 6 g·cm (0.0347 to 0.08 oz·inch)
   F.F./REW:
   100 to 160 g·cm (1.53 to 2.22 oz·inch)

3. ELECTRICAL ADJUSTMENTS AND CHECKS

3-1 PRECAUTIONS

1. Before performing adjustments and checks clean and demagnetize the entire tape path.
2. Make sure the deck is properly set for the voltage in your locality.
3. In general, adjustments and checks are made in the order of L-ch then R-ch. Double REF. Nos. indicate L-ch/R-ch. (Example; R11/R21)
4. 0 dB is referenced to 0.775 V. If an AC voltmeter that references 0 dB to 1 V is used, appropriate compensation should be made.
5. The AC voltmeter used in the procedures must have an input impedance of 1 M-ohmes or more.
6. Note the "Deck settings" at the top of each chart. The settings apply to all check for a specific chart unless explicitly stated otherwise.
7. Since this deck has an automatic tape selector, be sure to use test tapes that have tape position detecting holes.
8. Input terminals and measuring points at each step are the same as previous step, otherwise specified.

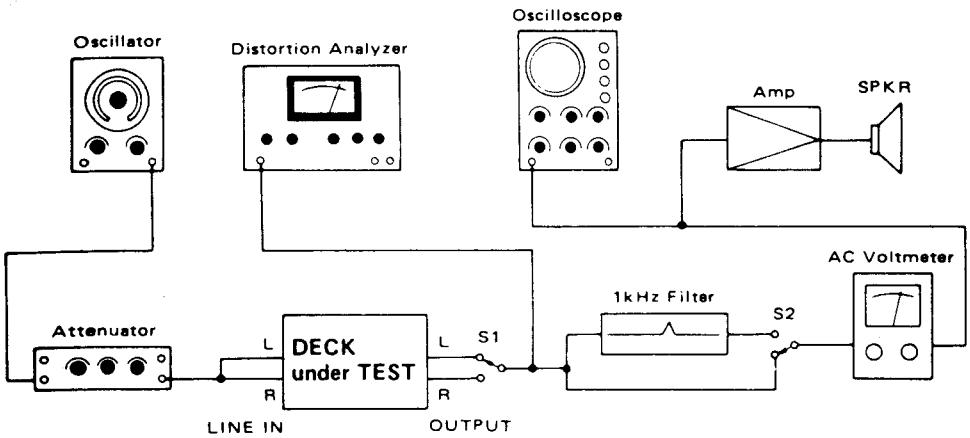
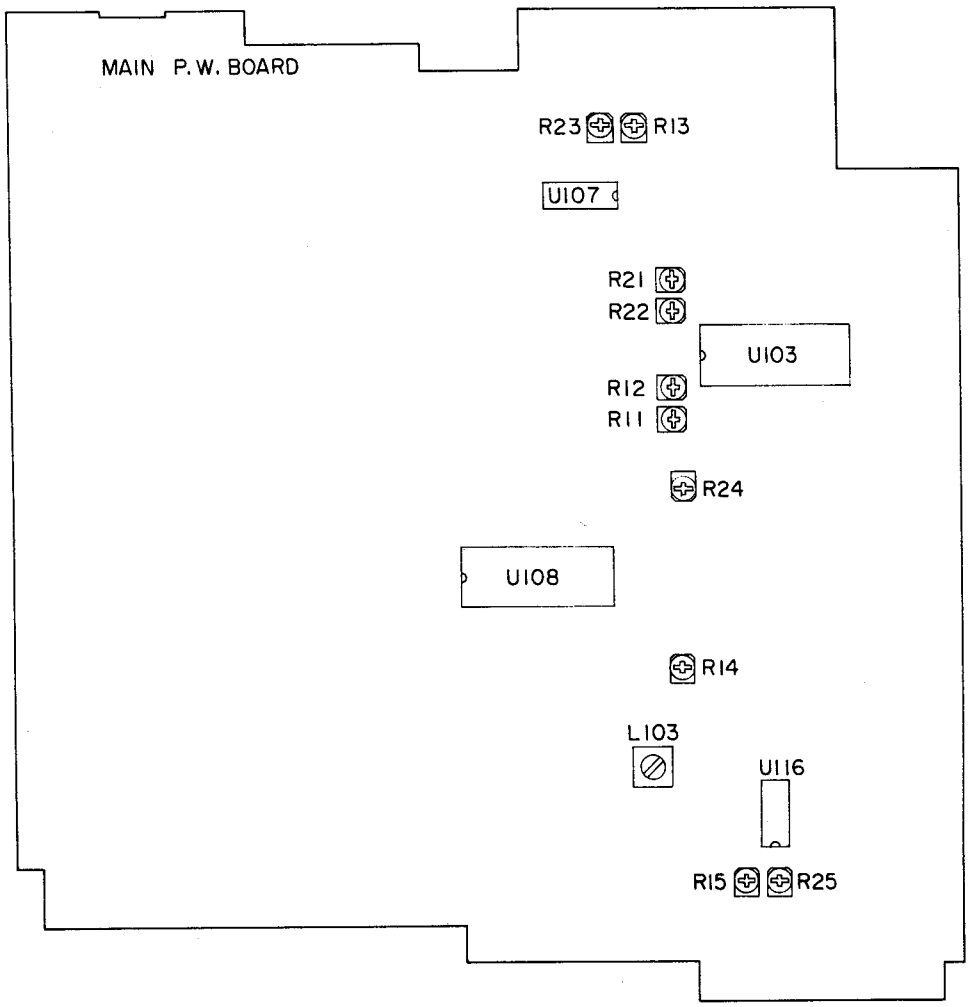


Fig. 3-1 Basic test setup

3-2 ADJUSTMENT LOCATIONS



R12/R22	Specified output level
R15/R25	Record bias
R14/R24	Record level
R13/R23	Peak level meter
R11/R21	Playback frequency response
L103	Bias osc. frequency

Fig. 3-2

3-3 PLAYBACK PERFORMANCE

Deck settings:
MPX FILTER sw: OUT
NR SYSTEM sw: OUT

TEAC test tapes:
MTT-150: For Dolby level calibration
MTT-256: For playback frequency response check for NORMAL
MTT-356: For METAL and CrO_2

ITEM	SETTING	INPUT SIGNAL	ADJUST (or CHECK)	MEASURING POINT, RESULT	REMARKS
1. REC·PLAY head azimuth	Connection: Fig. 3-3	MTT-150	Check	OUTPUT: Phase: within 45°	Refer to Fig. 3-4
		MTT-256 (10kHz)	Azimuth screws of R·P head (Fig. 3-6)	Phase between L-ch /R-ch: 0° Max. output at L- & R-ch's	
2. Specified output level	Connection: Fig. 3-1	MTT-150	R12/R22	−5dB (436mV)	
3. Meter level setting	Connection: Fig. 3-1	MTT-150	R13/R23	PEAK LEVEL METER: 0dB	
4. Playback frequency response	Connection: Fig. 3-1	MTT-256	R11/R21	OUTPUT: Nearly equal output level at 315Hz & 10kHz • Standard: Fig. 3-5	

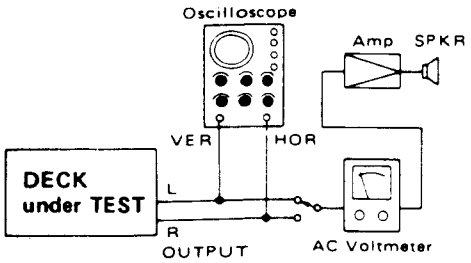


Fig. 3-3 Test setup for azimuth check

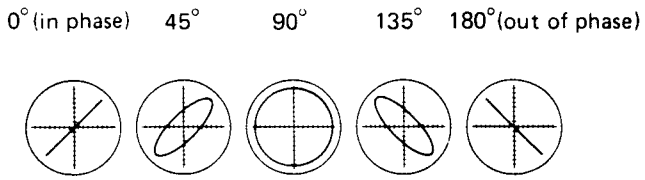


Fig. 3-4 Confirming phase relationship

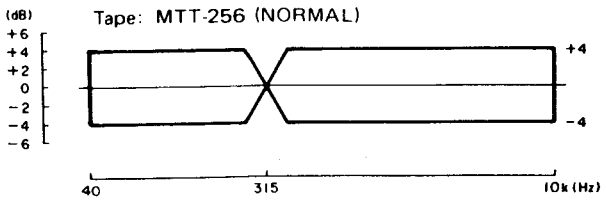


Fig. 3-5 Playback frequency response

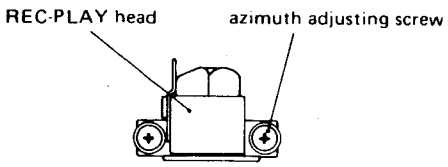


Fig. 3-6 Azimuth screw location

3-4 MONITOR PERFORMANCE

Deck settings: RECORD-PAUSE mode
NR SYSTEM sw: OUT
MPX FILTER sw: OUT

ITEM	SETTING	INPUT SIGNAL	ADJUST (or CHECK)	MEASURING POINT, RESUT	REMARKS
5. Min. LINE input level	Connection: Fig. 3-1 RECORDING LEVEL cont.: MAX	LINE IN: 400Hz/—19dB (86.9mV)	Check	OUTPUT: —5dB ±3dB (308mV~615mV)	
6. Specified LINE input level	Connection: Fig. 3-1 RECORDING LEVEL cont.: MAX	400Hz/—9dB (275mV)	RECC. DING LEVEL cont. (L/R)*	—5dB (436mV)	
		* After adjusting, do not move (Specific position)			
7. PHONES output level	Connection: Fig. 3-7 PHONES L. cont.: MAX	400Hz/—9dB (275mV)	Check	PHONES: At each channel —15dB ±3dB (97.5mV~195mV)	8Ω load

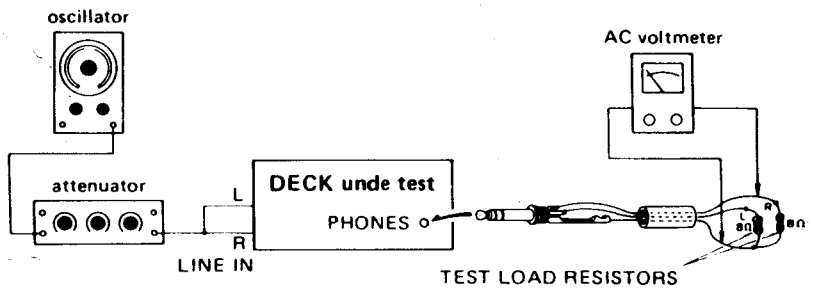


Fig. 3-7 Test setup for PHONES check

3-5 RECORDING PERFORMANCE

Deck settings:
NR SYSTEM sw: OUT
MPX FILTER sw: OUT
RECORD cont. (L/R): Spec. position (item 7)
BIAS FINE cont.: Center position

TEAC recording test tapes
MTT-5571: For METAL
MTT-5561: For CrO_2
MTT-5511: For NORMAL

ITEM	SETTING	INPUT SIGNAL	ADJUST (or CHECK)	MEASURING POINT, RESULT	REMARKS
8. BIAS osc. frequency	Connection: Fig. 3-8 Tape: MTT-5571 RECORD-PAUSE mode	no signal	L103	C257: ■ Mark 100kHz	Refer to Fig. 3-8
9. Record bias	Connection: Fig. 3-1 Tape: MTT-5511	LINE IN: 400Hz & 10kHz alternately/—42dB (6.15mV) Record and reproduce them.	R15/R25	OUTPUT: Nearly equal level at both frequencies	Repeat if the result is unsatisfactory
10. Record level	Tape: MTT-5511 Tape: MTT-5571 Tape: MTT-5561 Tape: MTT-5511 NR SYSTEM: IN & OUT	400Hz/—12dB (195mV) Record and reproduce them.	R14/R24 Check	—8dB (308mV) —8dB ±3dB (218mV~436mV)	
11. Total harmonic distortion	Tape: MTT-5571 Tape: MTT-5561 Tape: MTT-5511	LINE IN: 400Hz/—12dB (195mV)	Check	MTT-5571: 2.0% or less MTT-5561: 2.0% or less MTT-5511: 2.5% or less	

ITEM	SETTING	INPUT SIGNAL	ADJUST (or CHECK)	MEASURING POINT, RESULT	REMARKS
12. BIAS FINE control check BIAS FINE	Tape: MTT-5511 BIAS FINE cont: Fully "–" position, then fully "+" position	10kHz/–42dB (6.15mV)	Check	Measure output level (record playback) at "–" position then at "+" position Variation between "–" and "+" positions:	
13. Overall frequency response	Tape: MTT-5571 Tape: MTT-5561 Tape: MTT-5511	Required frequencies: –42dB (6.15mV)	Check	Standard: Fig. 4-9	
14. Overall S/N ratio	Tape: MTT-5571 Tape: MTT-5561 Tape: MTT-5511	1kHz/–9dB (275mV) ↓ no signal	Check	OUTPUT: 45dB min. [METAL, CrO_2] 44dB min. [NORMAL]	Ratio of specified output of –5dB to noise
15. Erase efficiency	Connection is same as in Fig. 3-1, but engage 1kHz filter. Record a 1kHz signal. Rewind tape to midpoint of recorded portion. Erase the recorded portion with no input signal. Find the difference between the 1kHz portion and the "no-signal" portion.				
	Tape: MTT-5571	1kHz/+1dB (0.869mV) ↓ no signal	Check	OUTPUT: 65dB min. ratio	Ref. output level: +5dB (1.38V)
16. REC MUTE function	Connection: Fig. 3-1, but engage 1kHz filter. Record a 1kHz signal. Push REC MUTE button for several seconds. (At this time, make sure LED lights). Rewind and play the tape. Find the difference between the 1kHz portion and the "no-signal" portion.				
	Tape: MTT-5571	1kHz/+1dB (0.869mV) ↓ no signal	Check	65dB min. ratio	Ref. output level: +5dB (1.38V)
17. Channel separation	• Connection: Fig. 3-1, but do not connect LINE IN (R), and engage 1kHz filter. • Set the deck to record mode. Find the difference between the 1kHz recorded portion (L-ch) and the "no signal" portion (R-ch).				
	Tape: MTT-5571	L-ch 125Hz/–9dB (275mV) R-ch No signal	Check	30dB min. ratio	
18. Adjacent track crosstalk	• Connection: Fig. 3-1, but do not connect LINE IN (L) and OUTPUT (L). • Record a 125Hz signal no R-ch and note output level. Invert tape and play R-ch track. Check leckage level against the output reference of previously recorded portion.				
	Tape: MTT-5571	L-ch No signal R-ch 125Hz/–9dB (275mV)	Check	40dB min. ratio	
19. MPX FILTER effect	RECORD-PAUSE mode MPX FILTER sw: ON	LINE IN 19kHz/–9dB (275mV)	Check	OUTPUT: The level difference between OFF and ON positions on MPX FILTER switch 30dB min.	

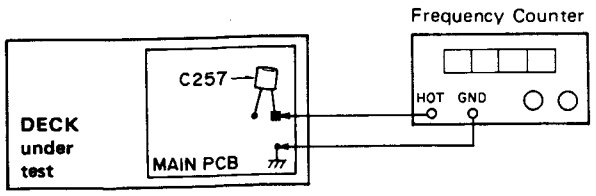


Fig. 3-8

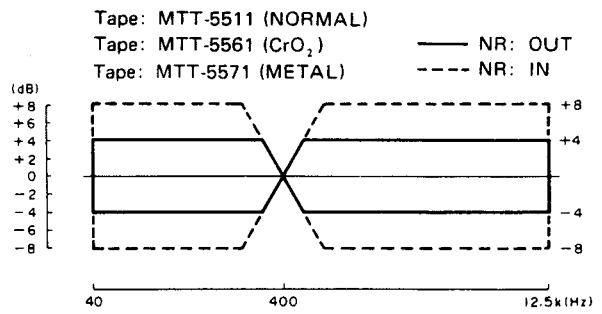
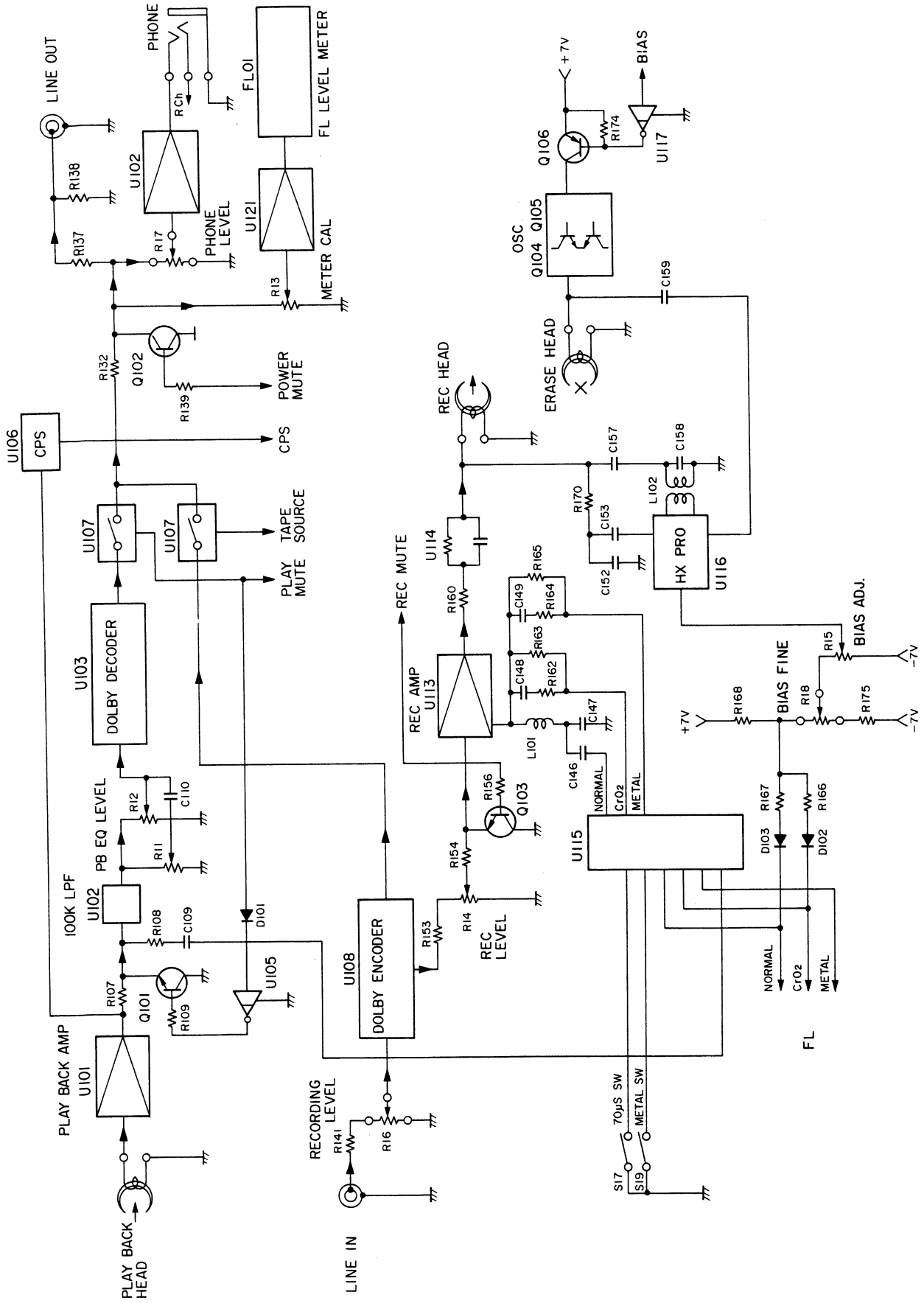


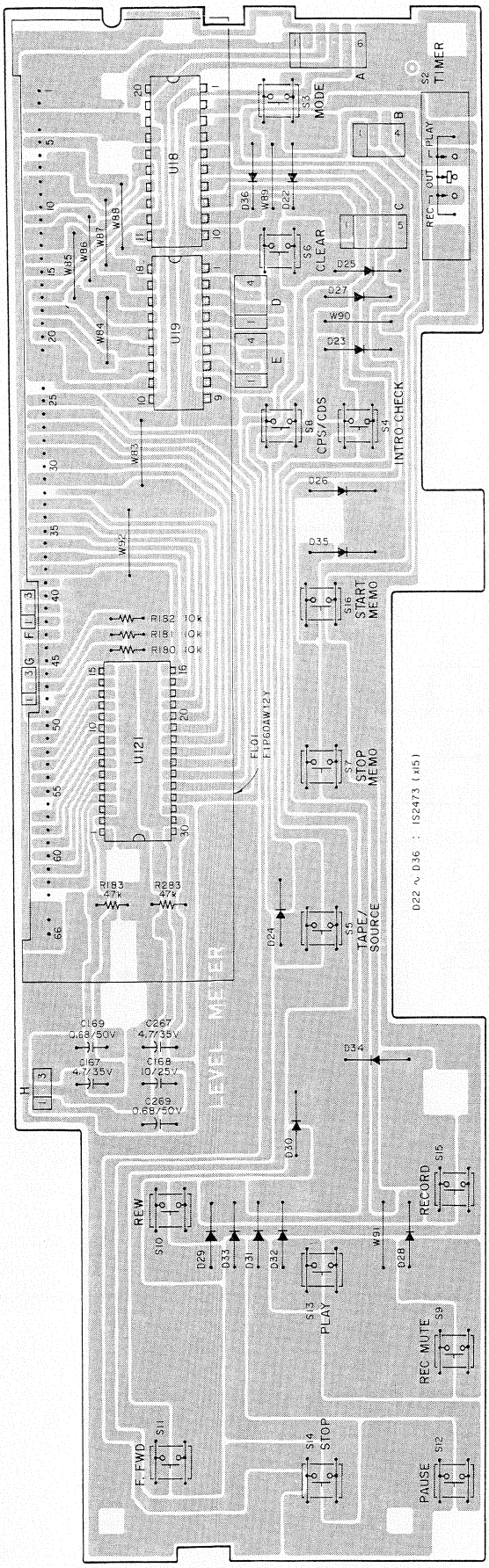
Fig. 3-9 Overall frequency response

4. BLOCK DIAGRAM

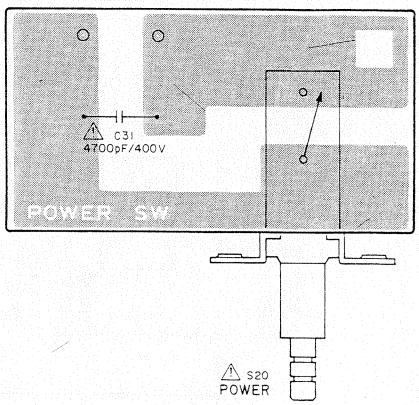


5. PARTS LOCATION (Pattern Side)

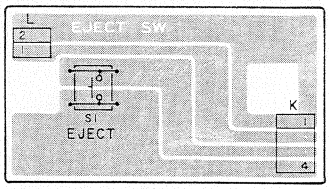
(PD01) Level Meter P.W. Board



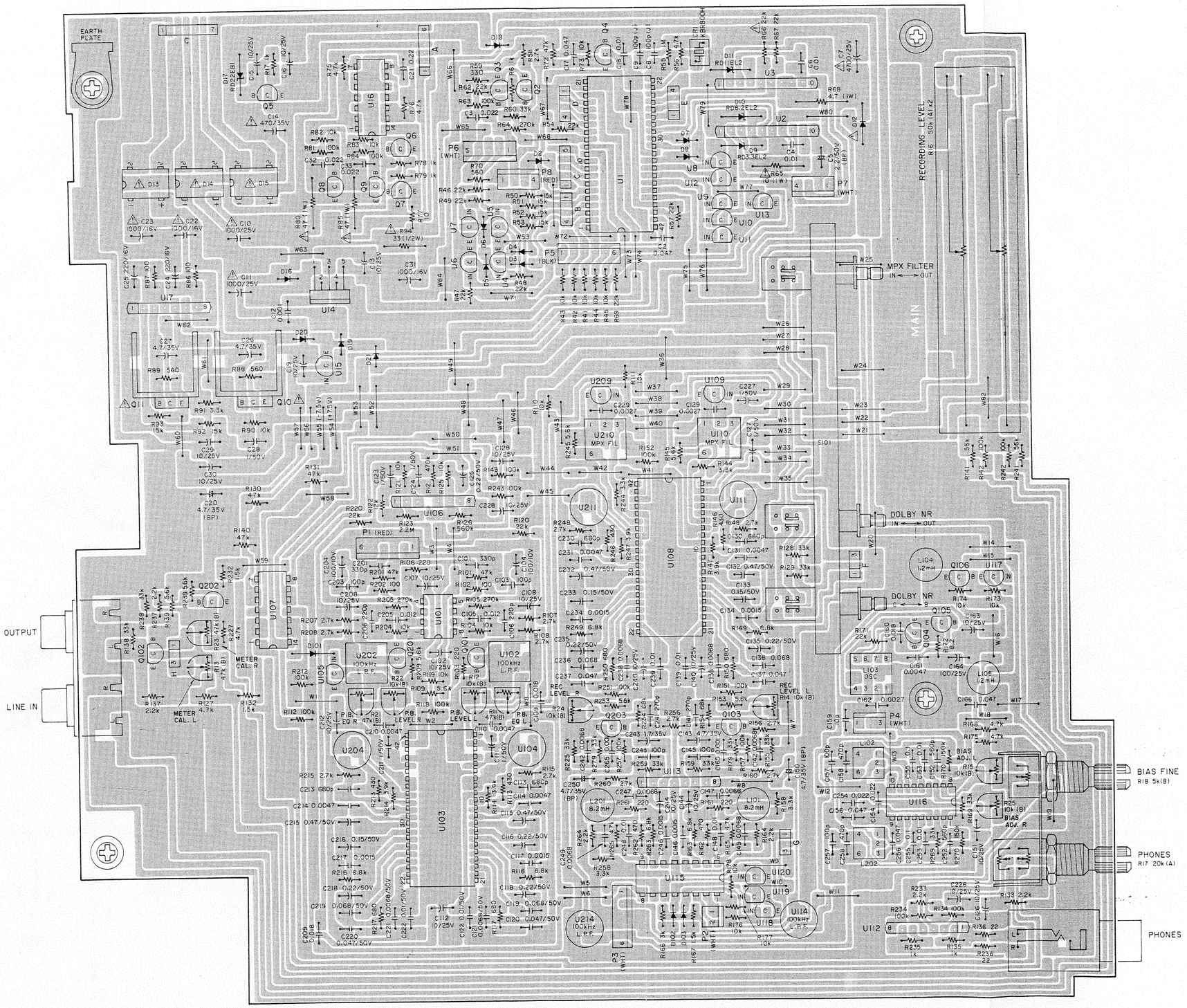
(PF01) Power Switch P.W. Board



(PE01) Eject Switch P.W. Board

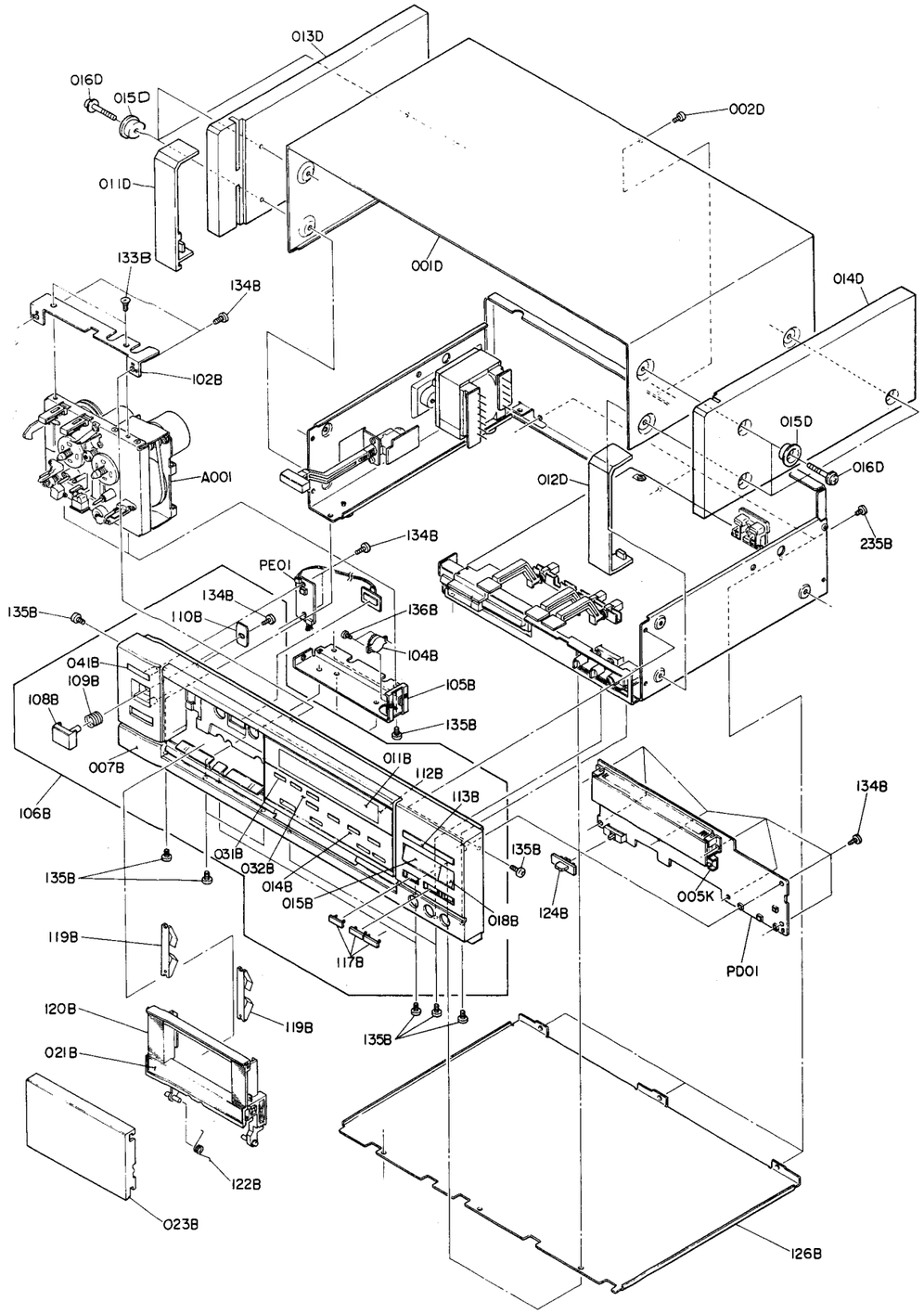


(PA01) Main P.W. Board

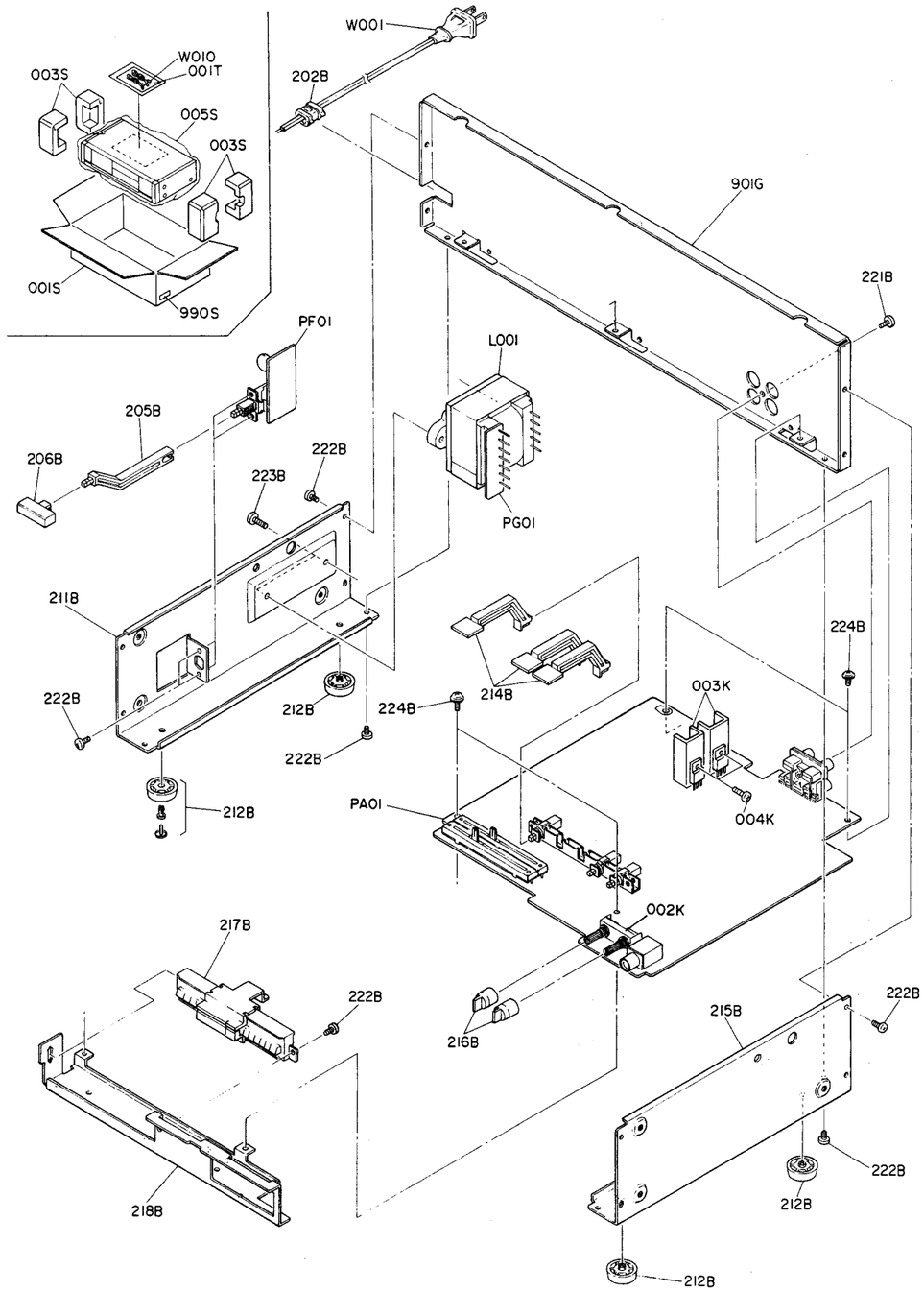


6. EXPLODED VIEWS AND PARTS LIST

EXPLODED VIEW-1



EXPLODED VIEW-2



EXPLODED VIEW-1

REF. DESIG.	PART NO.	DESCRIPTION
021B	4822 454 20833	Escutcheon, Cassette Holder
023B	4822 454 20832	Escutcheon, Cassette
104B	4822 403 53385	Dumper
106B	4822 443 40595	Front Panel Assy
119B	4822 492 63944	Leaf Spring
120B	4822 443 51114	Tray, Cassette Holder
122B	4822 492 32857	Spring
124B	4822 413 41435	Knob, Timer
011D	4822 443 40596	Side Panel (L)
012D	4822 443 40597	Side Panel (R)
013D	4822 454 20831	Escutcheon, Wood (L)
014D	4822 454 20829	Escutcheon, Wood (R)
015D	4822 532 11266	Bushing
016D	4822 502 13066	Screw M3 x 25

EXPLODED VIEW-2

REF. DESIG.	PART NO.	DESCRIPTION
202B	4822 532 11649	Bushing, AC Cord
205B	4822 535 92466	Rod, Power Switch
206B	4822 410 26392	Button, Power Switch
212B	4822 462 41233	Leg
214B	4822 410 26393	Button, MPX/Dolby NR
216B	4822 413 31517	Knob, Bias Fine/Level
217B	4822 413 31518	Knob Assembly, Rec Level
⚠L001	4822 146 30685	Power Transformer
⚠W001	4822 321 10549	A.C. Power Cord [N]
		PACKING
001T	4822 736 13847	User Manual [N, A, T]
W010	4822 321 22762	Connective Cord

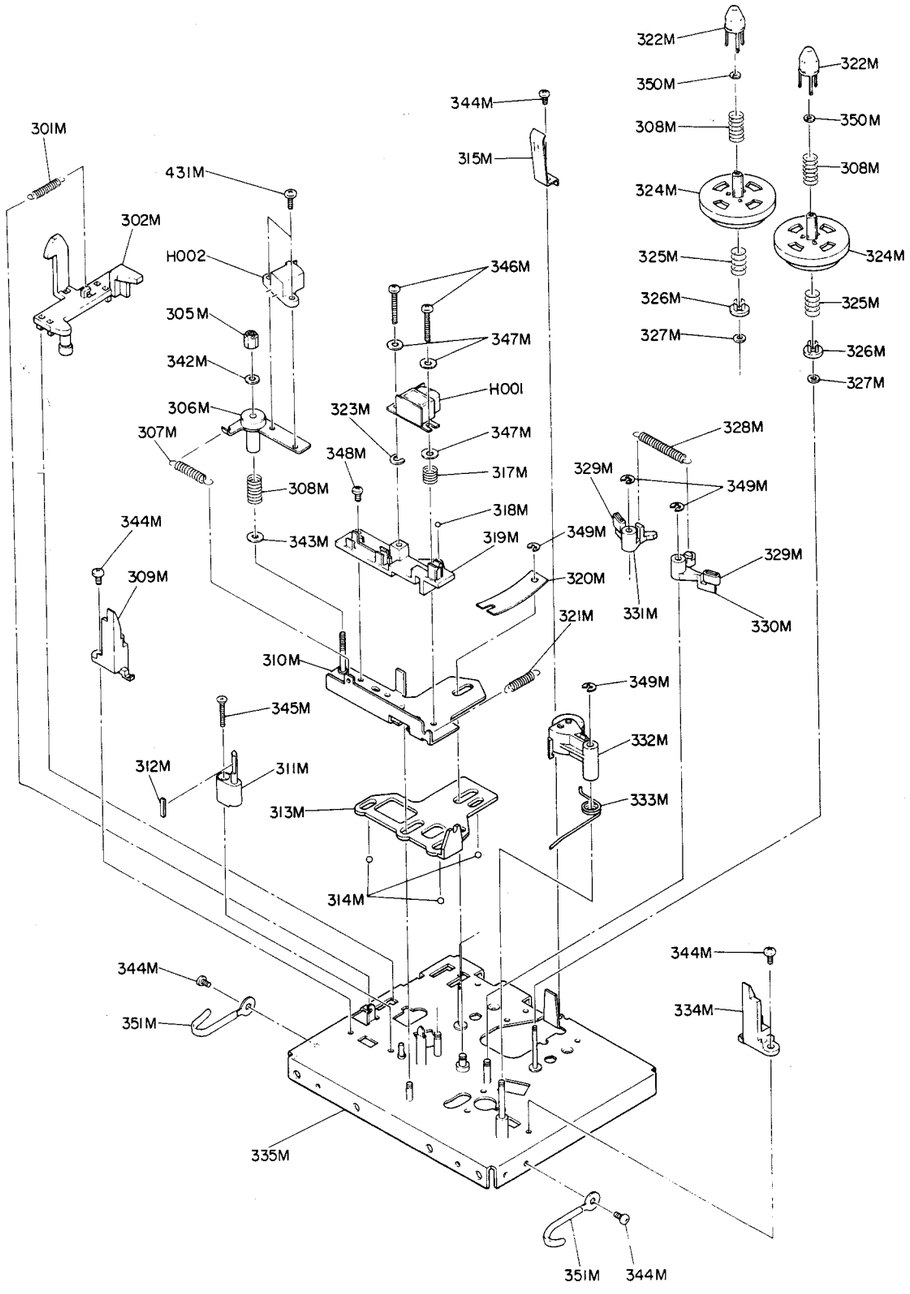
EXPLODED VIEW-3

REF. DESIG.	PART NO.	DESCRIPTION
301M	4822 492 32858	Spring
302M	4822 403 53386	Lever
305M	4822 505 10926	Nut
306M	4822 403 53387	Lever Assembly
307M	4822 492 32847	Spring
308M	4822 492 32848	Spring
309M	4822 403 53382	Guide (L)
311M	4822 403 53407	Support
312M	4822 535 92464	Pin
314M	4822 403 53383	Sustainer
315M	4822 492 32859	Spring
317M	4822 492 51974	Spring
318M	4822 403 53384	Sustainer
319M	4822 403 53408	Bracket, Head
320M	4822 492 32861	Spring
321M	4822 492 32862	Spring
322M	4822 462 41231	Cap
323M	4822 532 11648	Spacer
324M	4822 528 10699	Table
325M	4822 492 32863	Spring
326M	4822 466 92229	Buffer
327M	4822 532 51998	Washer
328M	4822 492 32864	Spring
329M	4822 466 40237	Brake
330M	4822 403 53405	Arm (R)
331M	4822 403 53406	Arm (L)
332M	4822 528 70523	Pinch Roller
333M	4822 492 32855	Spring
334M	4822 403 53403	Guide (R)
346M	4822 502 13067	Screw M2 x 16
H001	4822 249 10362	Rec/Play Head
H002	4822 249 40239	Erase Head

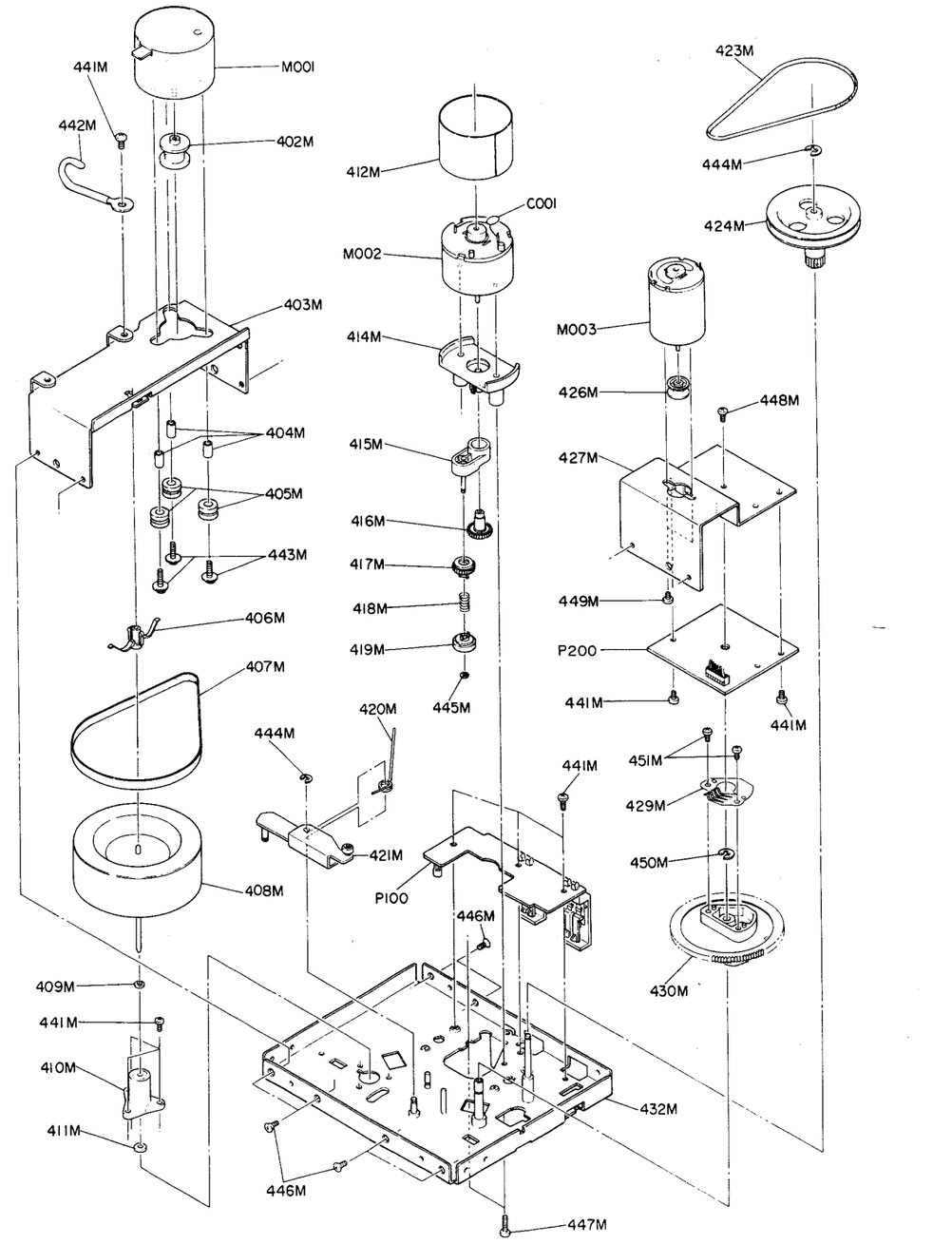
EXPLODED VIEW-4

REF. DESIG.	PART NO.	DESCRIPTION
402M	4822 528 81221	Pulley
405M	4822 532 11651	Bushing
406M	4822 532 81089	Retainer
407M	4822 358 30836	Belt, Main
408M	4822 535 92465	Capstan Assembly
409M	4822 532 51999	Washer
410M	4822 403 53404	Sustainer Assembly
411M	4822 532 52001	Washer
414M	4822 256 91293	Holder
415M	4822 403 53402	Arm Assembly
416M	4822 528 81222	Pulley
417M	4822 528 81223	Pulley
418M	4822 492 32865	Spring
419M	4822 528 81226	Pulley Assembly
420M	4822 492 32856	Spring
423M	4822 358 30835	Belt
424M	4822 528 81224	Pulley
426M	4822 528 81225	Pulley
429M	4822 492 63945	Leaf Spring
430M	4822 522 32449	Cam
447M	4822 502 13068	Screw M2.6 x 17
M001	4822 361 21111	D.C. Motor, Capstan
M002	4822 361 21108	D.C. Motor, Reel
M003	4822 361 21109	D.C. Motor, Cam

EXPLODED VIEW-3



EXPLODED VIEW-4



7. ELECTRICAL PARTS LIST

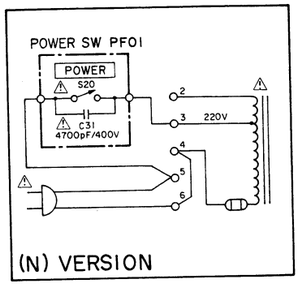
REF. DESIG.	PART NO.	DESCRIPTION
		PA01-MAIN CIRCUIT BOARD
		PA01-RESISTORS
R11	4822 100 11042	47KΩ, Trimming
R12	4822 100 11041	10KΩ, Trimming
R13	4822 100 11042	47KΩ, Trimming
R14	4822 100 11041	10KΩ, Trimming
R15	4822 100 11041	10KΩ, Trimming
R16	4822 102 10395	50KΩ(A)x2, Variable
R17	4822 102 10394	20KΩ(A)x2, Variable
R18	4822 101 20988	5KΩ(B), Variable
R21	4822 100 11042	47KΩ, Trimming
R22	4822 100 11041	10KΩ, Trimming
R23	4822 100 11042	47KΩ, Trimming
R24	4822 100 11041	10KΩ, Trimming
R25	4822 100 11041	10KΩ, Trimming
⚠R65	4822 116 80567	10KΩ ±5% 1W
⚠R68	4822 116 80566	4.7Ω ±5% 1W
⚠R80	4822 116 80568	47Ω ±5% 1W
⚠R85	4822 116 80568	47Ω ±5% 1W
⚠R94	4822 111 91258	33Ω ±5% ½W
		PA01-SEMICONDUCTORS
D2 ~ D8	4822 130 33305	Diode 1SS133
D9	4822 130 80744	Zener RD3.3EL2
D10	4822 130 80745	Zener RD6.2EL2
D11	4822 130 80747	Zener RD11EL2
⚠D12	4822 130 80746	Diode SM-1A-02LFA
⚠D13	4822 130 80748	Diode S1WB(A)20
⚠D14	4822 130 80748	Diode S1WB(A)20
⚠D15	4822 130 80748	Diode S1WB(A)20
D16	4822 130 33305	Diode 1SS133
D17	4822 130 32771	Zener RD22EB1
D18	4822 130 33305	Diode 1SS133
D19	4822 130 33305	Diode 1SS133
D20	4822 130 33305	Diode 1SS133
D101	4822 130 42112	Diode 1S2473
D102	4822 130 33305	Diode 1SS133
D103	4822 130 33305	Diode 1SS133
Q2	4822 130 60079	Transistor 2SC2603F
Q3	4822 130 60079	Transistor 2SC2603F
Q4	4822 130 60079	Transistor 2SC2603F
Q5	4822 130 43867	Transistor 2SD734F
Q6	4822 130 61095	Transistor 2SA1115F
Q7	4822 130 61095	Transistor 2SA1115F
Q8	4822 130 60079	Transistor 2SC2603F
Q9	4822 130 60079	Transistor 2SC2603F
⚠Q10	4822 130 43873	Transistor 2SD882(Q, P)
⚠Q11	4822 130 61096	Transistor 2SB772P
Q101	4822 130 60079	Transistor 2SC2603F
Q102	4822 130 42125	Transistor 2SD1302(S, T)
Q103	4822 130 60079	Transistor 2SC2603F
Q104	4822 130 60079	Transistor 2SC2603F
Q105	4822 130 60079	Transistor 2SC2603F
Q106	4822 130 61095	Transistor 2SA115F

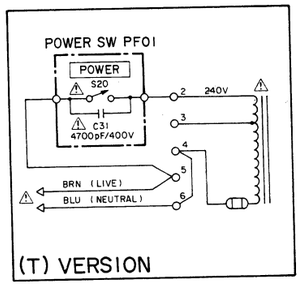
REF. DESIG.	PART NO.	DESCRIPTION
Q201	4822 130 60079	Transistor 2SC2603F
Q202	4822 130 42125	Transistor 2SD1302(S, T)
Q203	4822 130 60079	Transistor 2SC2603F
U1	4822 209 72867	IC LC6510C-3033
U2	4822 209 82196	IC BA6209
U3	4822 209 82196	IC BA6209
U4 ~ U9	4822 130 61094	Semicon Comp RTIN241S
U10	4822 130 61093	Semicon Comp RTIN241S
U11	4822 130 61093	Semicon Comp RTIP241S
U12	4822 130 61094	Semicon Comp RTIN241S
U13	4822 130 61093	Semicon Comp RTIN241S
U14	4822 209 70385	IC L78MR05
U15	4822 130 61093	Semicon Comp RTIP 241S
U16	4822 209 72864	IC M4011BP
U17	4822 209 72868	IC M5230LA
U101	4822 209 72869	IC M5220P
U103	4822 209 72871	IC CX20187
U105	4822 130 61094	Semicon Comp RTIN241S
U106	4822 209 72872	IC M51143AL
U107	4822 209 83842	IC M4066BP
U108	4822 209 72871	IC CX20187
U109	4822 130 61094	Semicon Comp RTIN241S
U112	4822 209 83348	IC M5218L
U113	4822 209 83348	IC M5218L
U115	4822 209 72873	IC AN6256
U116	4822 209 72874	IC μPC1297CA
U117	4822 130 61094	Semicon Comp RTIN241S
U118	4822 130 61094	Semicon Comp RTIN241S
U119	4822 130 61094	Semicon Comp RTIN241S
U120	4822 130 61094	Semicon Comp RTIN241S
U209	4822 130 61094	Semicon Comp RTIN241S
		PA01-MISCELLANEOUS
U102	4822 157 53435	L.C. Filter 100KHz
U104	4822 157 53436	L.C. Filter 19.8KHz
U110	4822 157 53437	L.C. Filter, MPX
U111	4822 157 53436	L.C. Filter 19.8KHz
U114	4822 157 53438	L.C. Filter 100KHz
U202	4822 157 53435	L.C. Filter 100KHz
U204	4822 157 53436	L.C. Filter 19.8KHz
U210	4822 157 53437	L.C. Filter, MPX
U211	4822 157 53436	L.C. Filter 19.8KHz
U214	4822 157 53438	L.C. Filter 100KHz
J009	4822 267 30928	Jack, Headphone
J010	4822 267 20346	Terminal, Line IN/OUT
L101	4822 157 53441	Choke Coil 8.2mH
L102	4822 157 53442	OSC Coil
L103	4822 157 53443	OSC Transformer
L104	4822 157 53439	Choke Coil 1.2mH
L105	4822 157 53439	Choke Coil 1.2mH
L201	4822 157 53441	Choke Coil 8.2mH
L202	4822 157 53442	OSC Coil
S101	4822 276 12401	Push Switch, Filter MPX/Dolby NR
CR1	4822 242 72147	Seramic Vib. KBR-800H

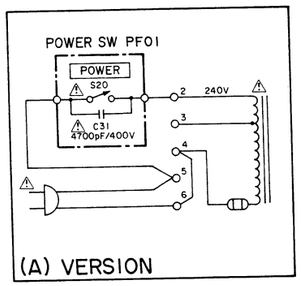
REF. DESIG.	PART NO.	DESCRIPTION
		PD01-LEVEL METER CIRCUIT BOARD
		PD01-SEMICONDUCTORS
D22 ~ D36	4822 130 42112	Diode 1S2473
U18	4822 209 72876	IC LB1245
U19	4822 209 72863	IC LB1290
U21	4822 209 72875	IC HA12067NT
		PD01-MISCELLANEOUS
S2	4822 277 30809	Slide Switch, Timer
S3 ~ S13	4822 276 12398	Push Switch
S14	4822 276 12399	Push Switch
S15	4822 276 12398	Push Switch
S16	4822 276 12398	Push Switch
FL01	4822 130 90522	Display Unit FIP60AW12Y
		PE01-EJECT SWITCH CIRCUIT BOARD
D1	4822 130 80749	L.E.D. SLF301C
S1	4822 276 12398	Push Switch
		PF01-POWER SWITCH CIRCUIT BOARD
⚠C31	4822 122 32017	Ceramic Cap. 4700pF 400V
⚠S20	4822 276 12397	Push Switch, Power
		P100-SENSOR CIRCUIT BOARD
Q1	4822 130 20196	Photo Unit NJL5141E-B
S16	4822 271 30622	Mini Switch Rec Safety
S17	4822 271 30622	Mini Switch 70μs
S18	4822 271 30622	Mini Switch Cassette
S19	4822 271 30622	Mini Switch Metal

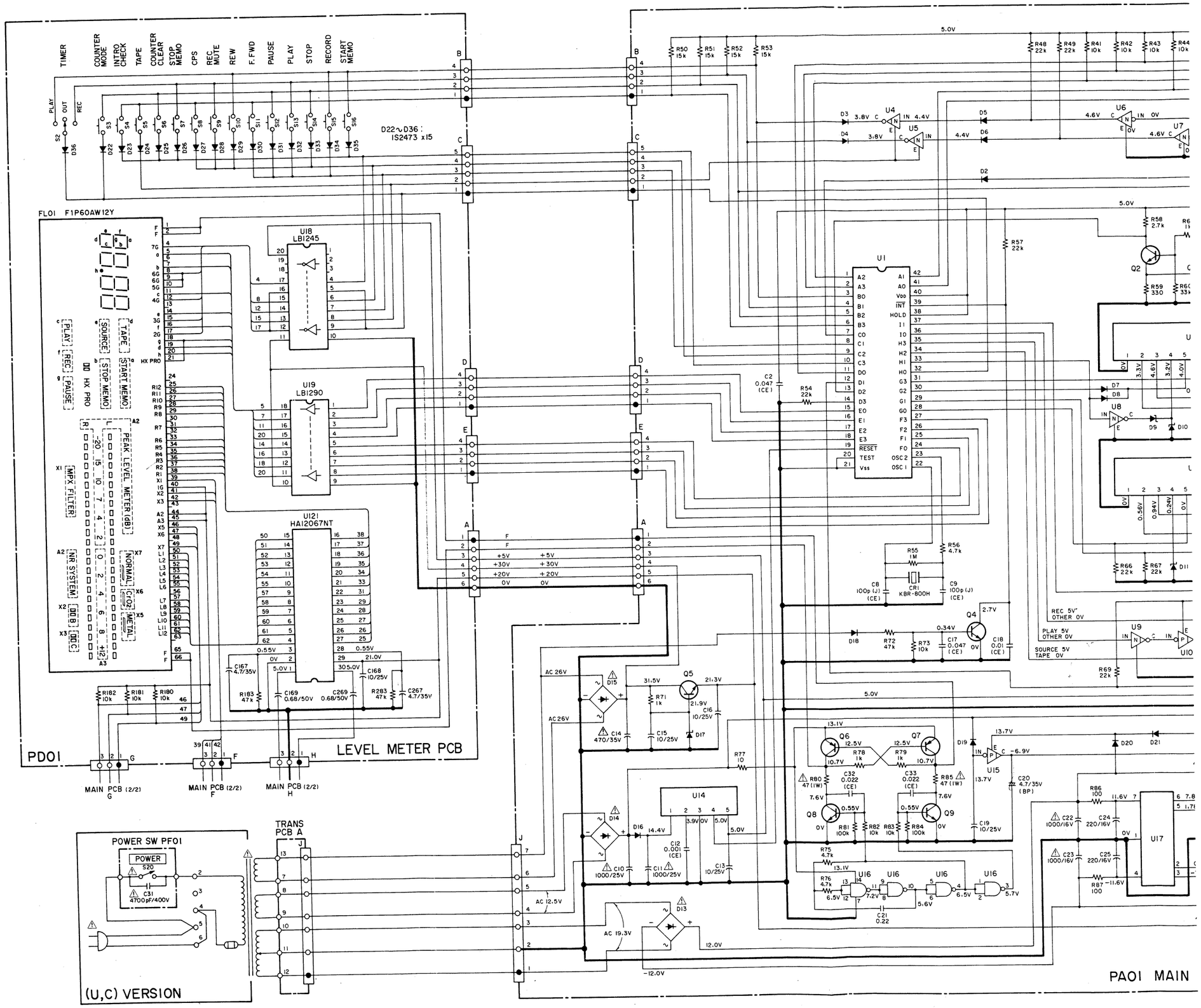
NOTE ON SAFETY:
SYMBOL ⚠ FIRE OR ELECTRICAL SHOCK HAZARD. ONLY ORIGINAL PARTS SHOULD BE USED TO REPLACE ANY PART MARKED WITH SYMBOL ⚠. ANY OTHER COMPONENT SUBSTITUTION (OTHER THAN ORIGINAL TYPE), MAY INCREASE RISK OF FIRE OR ELECTRICAL SHOCK HAZARD.

SCHEMATIC DIAGRAM

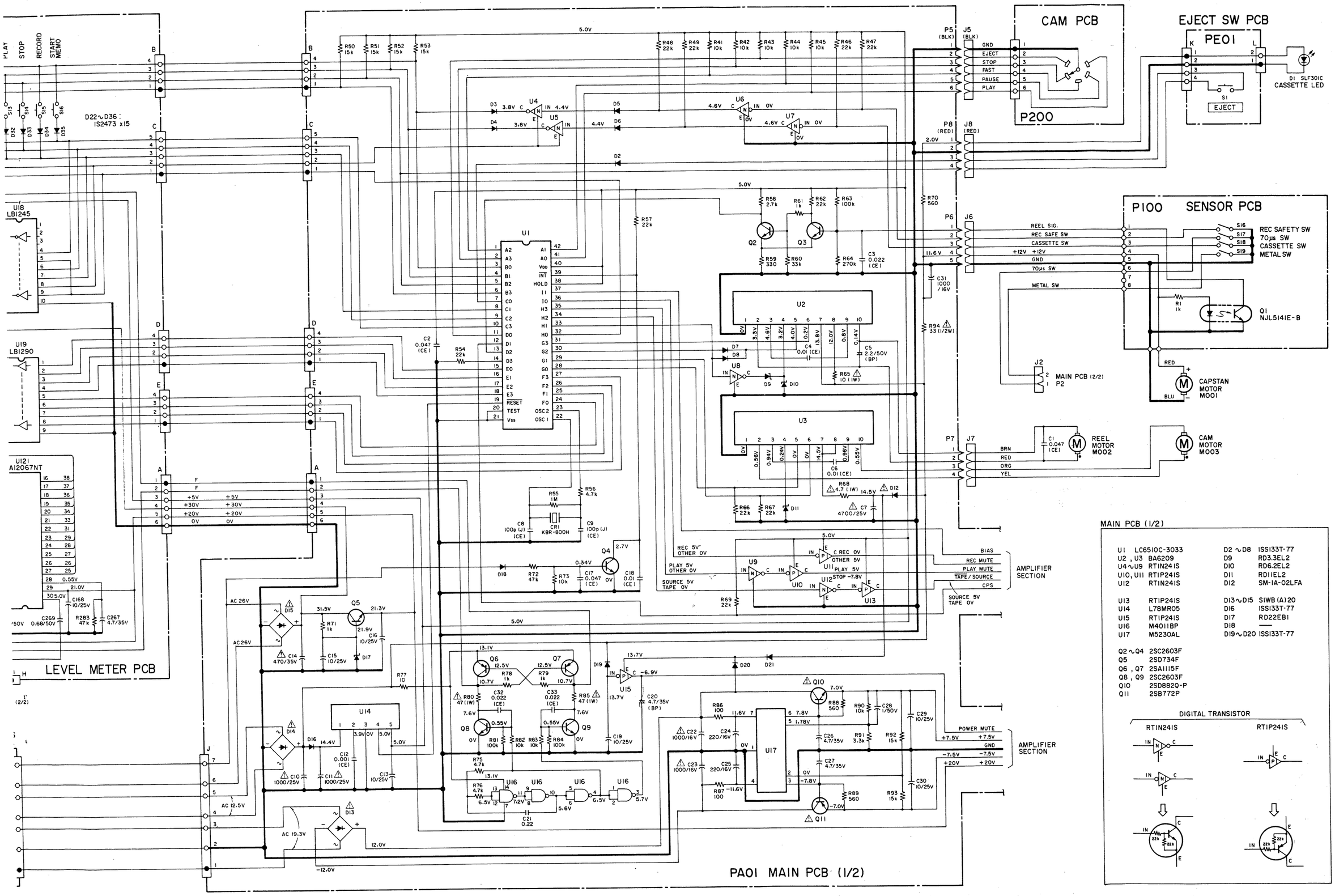








MODEL SD-55



MAIN PCB (1/2)

U1	LC65I0C-3033	D2 ~ D8	ISSI33T-77
U2 , U3	BA6209	D9	RD3.3EL2
U4 ~ U9	RTIN24IS	D10	RD6.2EL2
U10, U11	RTIP24IS	D11	RD11EL2
U12	RTIN24IS	D12	SM-IA-02LFA
U13	RTIP24IS	D13 ~ D15	SIWB(A)20
U14	L78MR05	D16	ISSI33T-77
U15	RTIP24IS	D17	RD22EB1
U16	M4011BP	D18	—
U17	M5230AL	D19 ~ D20	ISSI33T-77
Q2 ~ Q4	2SC2603F		
Q5	2SD734F		
Q6 , Q7	2SA1115F		
Q8 , Q9	2SC2603F		
Q10	2SD882Q-P		
Q11	2SB772P		

DIGITAL TRANSISTOR

RTIN24IS

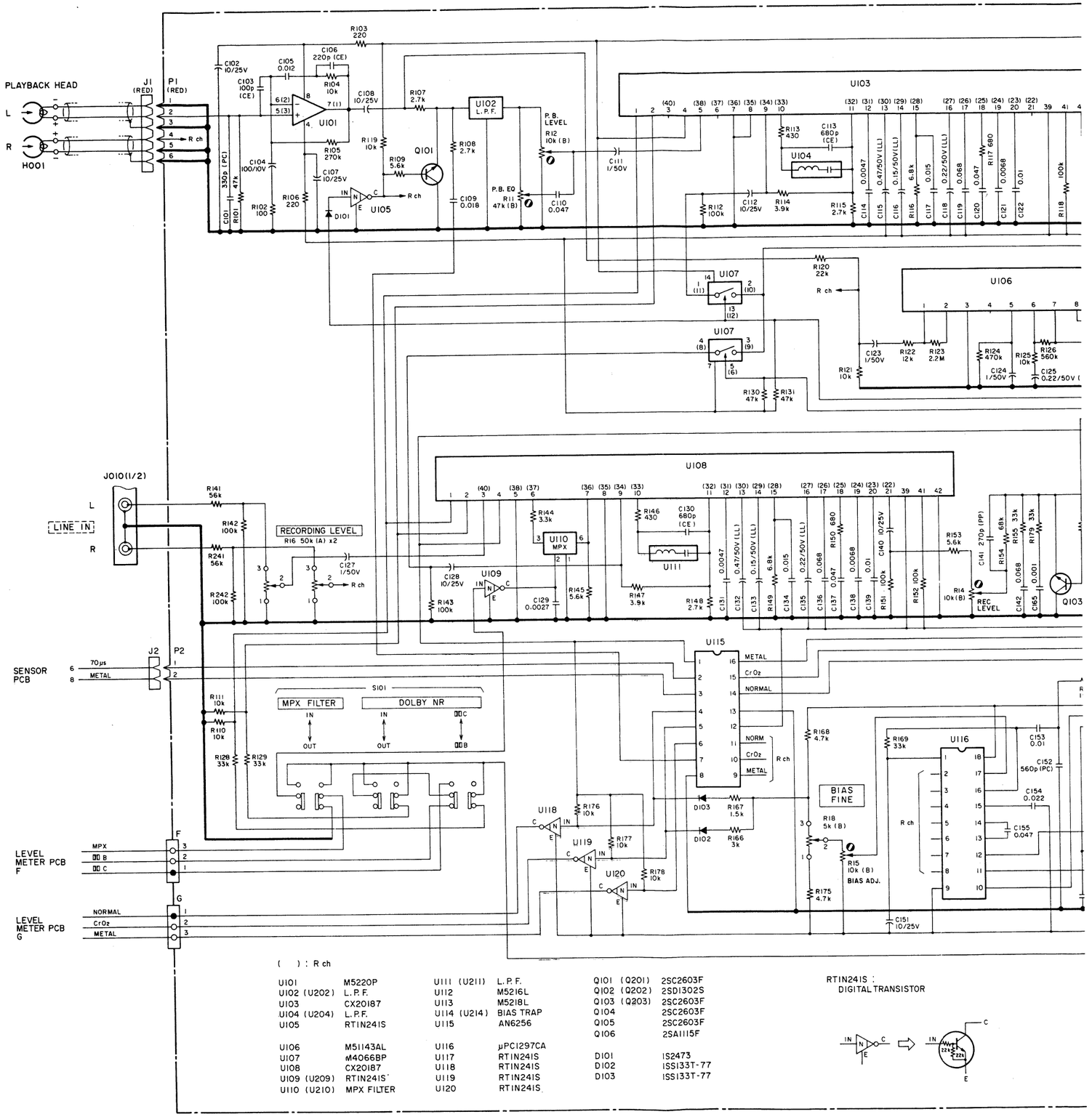
RTIP24IS

MZ 1809

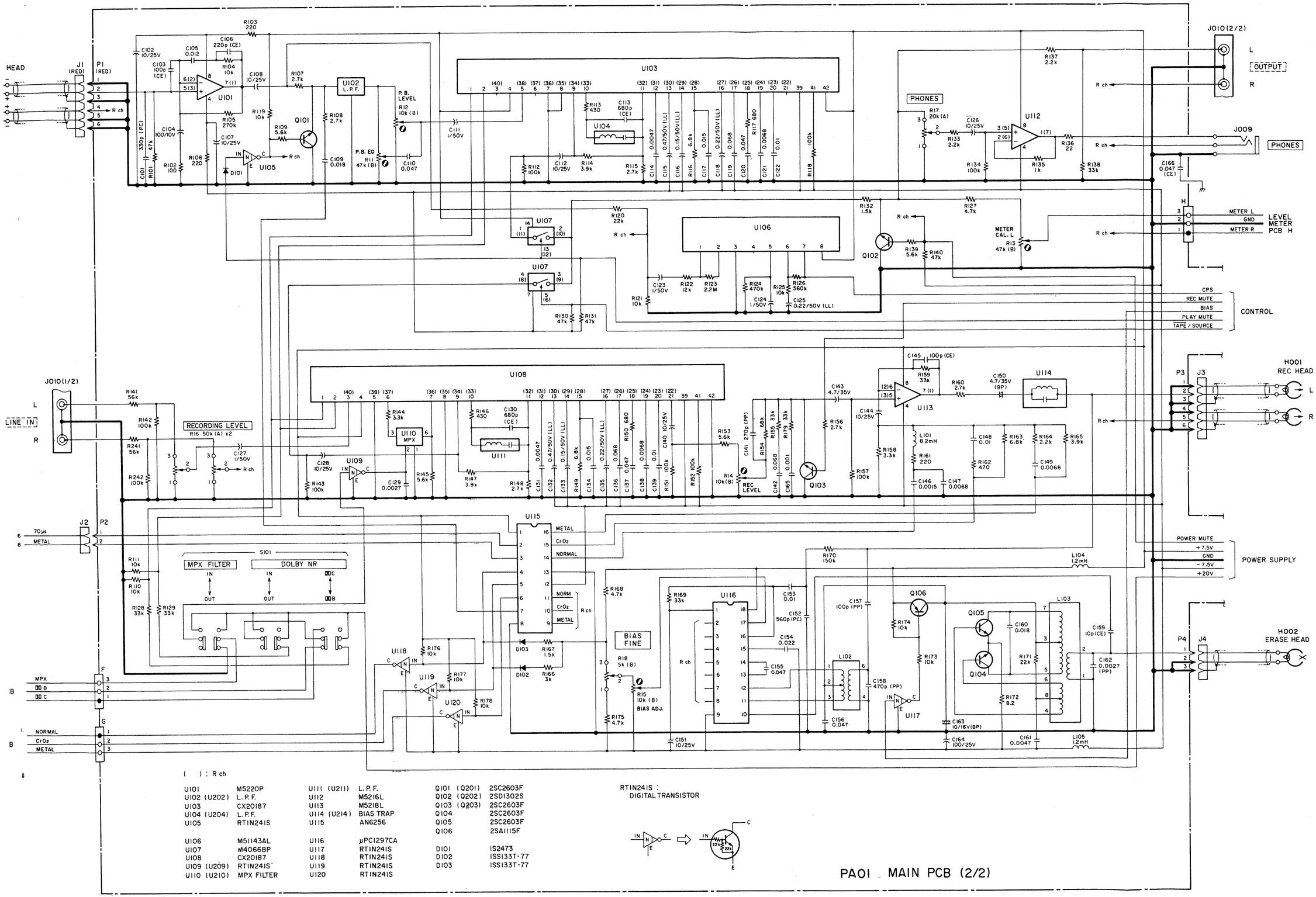
NOTE ON SAFETY:
Symbol ⚠ Fire or electrical shock hazard. Only original partrs should be used to replace any part marked with symbol ⚠. Any other component substitution (other than original type), may increase risk of fire or electrical shock hazard.

"SERVICE INFORMATION IS FOR USE BY QUALIFIED RERSONNEL ONLY – ANY MISADJUSTMENT OR MISALIGNMENT MAY BE TREATED AS A NON-WARRANTY REPAIR BY ANY MARANTZ SERVICE CENTER–"

Components and wiring are subject to change for modification without notice.



U101	M5220P	U111 (U211)	L.P.F.	Q101 (Q201)	2SC2603F
U102 (U202)	L.P.F.	U112	M5216L	Q102 (Q202)	2SD1302S
U103	CX20187	U113	M5218L	Q103 (Q203)	2SC2603F
U104 (U204)	L.P.F.	U114 (U214)	BIAS TRAP	Q104	2SC2603F
U105	RTIN241S	U115	AN6256	Q105	2SC2603F
				Q106	2SA1115F
U106	M51143AL	U116	μPC1297CA		
U107	M4066BP	U117	RTIN241S	D101	1S2473
U108	CX20187	U118	RTIN241S	D102	1SS133T-77
U109 (U209)	RTIN241S	U119	RTIN241S	D103	1SS133T-77
U110 (U210)	MPX FILTER	U120	RTIN241S		



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U101	M5220P	U111 (U211)	L.P.F.	Q101 (Q201)	2SC2603F
U102 (U202)	L.P.F.	U112	M5216L	Q102 (Q202)	2SD1302S
U103	CX20187	U113	M5218L	Q103 (Q203)	2SC2603F
U104 (U204)	L.P.F.	U114 (U214)	BIAS TRAP	Q104	2SC2603F
U105	RTIN241S	U115	AN6256	Q105	2SC2603F
				Q106	2SA1115F
U106	M51143AL	U116	μPC1297CA		
U107	M4066BP	U117	RTIN241S	D101	IS2473
U108	CX20187	U118	RTIN241S	D102	ISS133T-77
U109 (U209)	RTIN241S	U119	RTIN241S	D103	ISS133T-77
U110 (U210)	MPX FILTER	U120	RTIN241S		

RTIN241S :
DIGITAL TRANSISTOR

PA01 MAIN PCB (2/2)

8. TECHNICAL SPECIFICATIONS

Track System	4-Track 2-Channel Stereo
Heads	3: 1 Erase, 1 Record and 1 Playback (Combination)
Type of Tape	Cassette tape C-60 and C-90 (Philips type)
Tape Speed	4.76 cm/sec. (1-7/8 ips)
Motors	3: 1 DC Servo capstan motor
	1 DC reel motor
	1 DC mechanism motor
Wow and Flutter (WRMS)	0.03%
Frequency Response (Overall, –20 dB)	20 – 21,000 Hz
	(25 – 20,000 Hz ±3 dB), Metal
	20 – 19,000 Hz
	(25 – 19,000 Hz ±3 dB), CrO_2
	20 – 18,000 Hz
	(25 – 17,000 Hz ±3 dB), Normal
Signal-to-Noise Ratio (Overall)	60 dB (3% THD Level, Weighted)
	70 dB (Dolby B NR in, over 5 kHz)
	80 dB (Dolby C NR in, over 1 kHz)
Fast Winding Time	Approximately 80 seconds for C-60
Inputs	Line: 87 mV, 40 kohms
Outputs	Line: 0.43 V for load impedance of 50 kohms or more
	Headphones: 8 ohms
Power Requirements	120/220/240 V
	AC, 50/60 Hz
	(General export model)
	120 V AC, 60 Hz (USA/Canada)
	220 V AC, 50 Hz (Europe)
	240 V AC, 50 Hz (U.K./Australia)
Power Consumption	17 W
Dimensions (W x H x D)	435 x 120 x 265 mm (17-1/8" x 4-3/4" x 10-7/16")
Weight	4.9 kg (10-9/10 lbs) net

- Specifications were determined using metal tape except as noted.
- Improvements may result in specification or feature change without notice.

Value of "dB" in the data refers to 0 dB (0.775 V), except where Specified.